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APPLICATION NO.	FIL	ING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.		
10/623,001	07/18/2003		Alexey S. Kabalnov	200209419-1	4124		
22879	7590	02/24/2005		EXAM	EXAMINER		
		RD COMPANY E. HARMONY RO	KLEMANSKI	KLEMANSKI, HELENE G			
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FORT COLLINS, CO 80527-2400				1755			
				DATE MAII ED: 02/24/2004	ς .		

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
	10/623,001	KABALNOV ET AL.
Office Action Summary	Examiner	Art Unit
	Helene Klemanski	1755
The MAILING DATE of this communication apportant appropriate for Reply	ears on the cover sheet with the c	orrespondence address
A SHORTENED STATUTORY PERIOD FOR REPLY THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply - If NO period for reply is specified above, the maximum statutory period w - Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	6(a). In no event, however, may a reply be time within the statutory minimum of thirty (30) days ill apply and will expire SIX (6) MONTHS from cause the application to become ABANDONE	nely filed s will be considered timely. the mailing date of this communication. D (35 U.S.C. § 133).
Status		•
<ul> <li>1) Responsive to communication(s) filed on</li></ul>	action is non-final. ce except for formal matters, pro	
Disposition of Claims		
4) □ Claim(s) 1-38 is/are pending in the application. 4a) Of the above claim(s) is/are withdraw 5) □ Claim(s) is/are allowed. 6) □ Claim(s) 1-9,12-16,18-30 and 33-37 is/are rejected 7) □ Claim(s) 10,11,17,31,32 and 38 is/are objected 8) □ Claim(s) are subject to restriction and/or	cted.	
Application Papers		
9) The specification is objected to by the Examiner 10) The drawing(s) filed on is/are: a) acce Applicant may not request that any objection to the d Replacement drawing sheet(s) including the correction 11) The oath or declaration is objected to by the Examiner	epted or b) objected to by the E Irawing(s) be held in abeyance. See on is required if the drawing(s) is obj	e 37 CFR 1.85(a). ected to. See 37 CFR 1.121(d).
Priority under 35 U.S.C. § 119		
a) All b) Some * c) None of:  1. Certified copies of the priority documents 2. Certified copies of the priority documents 3. Copies of the certified copies of the priori application from the International Bureau * See the attached detailed Office action for a list of	have been received. have been received in Application ty documents have been received (PCT Rule 17.2(a)).	on No ed in this National Stage
Attachment(s)		
Notice of References Cited (PTO-892)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  Paper No(s)/Mail Date 7/18/03&12/3/04.	4) Interview Summary Paper No(s)/Mail Da 5) Notice of Informal P 6) Other:	

U.S. Patent and Trademark Office PTOL-326 (Rev. 1-04)

### **DETAILED ACTION**

#### Information Disclosure Statement

1. The information disclosure statement filed December 3, 2004 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

Applicants should note that the examiner's copy of the application does not contain any of the foreign references cited in the above information disclosure statement. The examiner will consider these references if they are filed in response to this Office Action.

# Claim Objections

2. Claims 1, 6-8, 22, 28 and 29 are objected to because of the following informalities: in claim 1, the second line after Formula 1, the phrase "and wherein" should be deleted; also in claim 1, the third line after Formula 1, the phrase "and wherein" should be deleted (both occurrences); lastly in claim 1, the fourth line after Formula 1, the term "wherein" should be deleted; in claim 6, line 2, the term "theyellow" should be replaced with the phrase "the yellow"; in claim 7, line 2, the term "DB199" should be replaced with the phrase "Direct Blue 199"; in claim 8, the first line after the formula, the term "SO<sub>2</sub>NH-alkyl-OH<sub>2</sub>" should be replaced with the term "SO<sub>2</sub>NH-alkyl-OH<sub>2</sub>" should be replaced with the term "SO<sub>2</sub>NH-alkyl-OH<sub>3</sub>"; in claim 22, the second line after Formula 1, the phrase "and wherein" should be

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deleted; also in claim 22, the third line after Formula 1, the phrase "and wherein" should be deleted (both occurrences); lastly in claim 22, the fourth line after Formula 1, the term "wherein" should be deleted; in claim 28, line 2, the term "DB199" should be replaced with the phrase "Direct Blue 199" and in claim 29, the first line after the formula, the term "SO<sub>2</sub>NH-alkyl-OH<sub>2</sub>" should be replaced with the term "SO<sub>2</sub>NH-alkyl-OH<sub>2</sub>". Appropriate correction is required.

## Claim Rejections - 35 USC § 112

- 3. The following is a quotation of the first paragraph of 35 U.S.C. 112:
  - The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
- 4. Claims 4 and 25 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for (1) a cyan colorant further comprising Acid Blue 9 dye blended with the phthalocyanine dye and (2) a cyan ink-jet ink further comprising Acid Blue 9 dye admixed in the first ink vehicle, does not reasonably provide enablement for (1) a cyan colorant further comprising a cyan triarylmethine dye blended with the phthalocyanine dye in claim 4 and (2) a cyan ink-jet ink further comprising a cyan azo dye admixed in the first ink vehicle in claim 25. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims.

With respect to claim 4, the claim recites that a cyan triarylmethine dye is blended with the phthalocyanine dye. This encompasses <u>any</u> cyan triarylmethine dye.

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However, the specification only teaches the use of Acid Blue 9. Such a limited disclosure does not support the breadth of the instant claims. The examiner suggests the deletion of the phrase "a cyan triarylmethine dye" and the incorporation of "Acid Blue 9" in its place to overcome this rejection. Accordingly, claim 13 should be canceled if applicants make the above change as suggested by the examiner.

With respect to claim 25, the claim recites that a cyan azo dye is admixed in the first in vehicle with the phthalocyanine dye. This encompasses <u>any</u> cyan azo dye. However, the specification only teaches the use of Acid Blue 9. Such a limited disclosure does not support the breadth of the instant claims. The examiner suggests the deletion of the phrase "a cyan azo dye" and the incorporation of "Acid Blue 9" in its place to overcome this rejection. Accordingly, claim 34 should be canceled if applicants make the above change as suggested by the examiner.

- 5. The following is a quotation of the second paragraph of 35 U.S.C. 112:
  The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
- 6. Claim 34 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 34, line 1, the phrase "the cyan triarylmethine dye" appears to lack antecedent basis in claim 25. The examiner suggests the deletion of this claim in view of the above 112, first paragraph, rejection.

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7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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8. Claims 1-9, 12-16, 18-30 and 33-37 are rejected under 35 U.S.C. 102(e) as being anticipated by Zimmer et al.

Zimmer et al. teach a dye set comprising (1) a magenta dye set comprising a xanthene dye (i.e. rhodamine dye) such as Acid Red 52, Acid Red 289 or mixtures thereof and a metallized azo dye of the formula

$$O-M^{1}$$
 $O$ 
 $SO_{3}M$ 
 $MO_{3}S$ 
 $SO_{7}M$ 

wherein M<sup>1</sup> is Cu, Ni, Fe or Cr and M is H, Na, Li, K or an ammonium ion such as Reactive Red 23 in a weight ratio of xanthene dye to metalized azo dye of from about 1:10 to 1:1; (2) at least one yellow dye selected from Acid Yellow 17, Acid Yellow 23, Direct Yellow 132, a dye of the formula

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and a dye of the formula

wherein M is H, Na, Li, K or an ammonium ion and (3) at least one cyan dye selected from the group consisting of Direct Blue 199, Acid Blue 9 and mixtures thereof. The yellow dye can be a mixture of Acid Yellow 17 or Acid Yellow 23 in combination with Direct Yellow 132, a dye of the formula

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or a dye of the formula

wherein M is H, Na, Li, K or an ammonium ion. Zimmer et al. further teach an ink jet ink set comprising a magenta ink comprising from about 0-2% by weight of a xanthene dye (i.e. rhodamine dye) such as Acid Red 52, Acid Red 289 or mixtures thereof and 2-4% by weight of a metalized azo dye of the formula

$$MO_{3}S$$
 $SO_{3}M$ 
 $SO_{3}M$ 

wherein M¹ is Cu, Ni, Fe or Cr and M is H, Na, Li, K or an ammonium ion such as
Reactive Red 23 in a weight ratio of xanthene dye to metalized azo dye of from about
1:10 to 1:1 and an ink vehicle; (2) a yellow ink comprising 0.05-20% by weight of at
least one yellow dye selected from Acid Yellow 17, Acid Yellow 23, Direct Yellow 132, a
dye of the formula

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and a dye of the formula

$$\begin{array}{c|c} CH_3O \\ \\ SO_3M \\ \\ CH_3 \\ \end{array} \begin{array}{c} H \\ \\ N \\ \\ S(CH_2)_3SO_3M \\ \\ S(CH_2)_3SO_3M \\ \end{array}$$

wherein M is H, Na, Li, K or an ammonium ion and an ink vehicle and (3) a cyan ink comprising 0.05-20% by weight of at least one cyan dye selected from the group consisting of Direct Blue 199, Acid Blue 9 and mixtures thereof and an ink vehicle. The yellow dye can be a mixture of Acid Yellow 17 or Acid Yellow 23 in combination with Direct Yellow 132, a dye of the formula

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$$\begin{array}{c} \text{SO}_{3}\text{M} \\ \\ \text{SO}_{3}\text{M} \\ \\ \text{SO}_{3}\text{M} \end{array}$$

or a dye of the formula

M is H, Na, Li, K or an ammonium ion. See col. 1, line 60 – col. 2, line 26, col. 2, line 65 – col. 3, line 30, col. 3, line 64 – col. 4, line 27, col. 4, line 50 – col. 6, line 60, col. 7, line 30 – col. 8, line 65, col. 11, lines 34-39, col. 12, lines 44-49, col. 13, lines 8-53, examples 1-3 and claims 3-8, 12-19 and 24. The dye set and ink jet ink set as taught by Zimmer et al. appears to anticipate the present claims.

# Allowable Subject Matter

9. Claims 10, 11, 17, 31, 32 and 38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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10. The following is a statement of reasons for the indication of allowable subject matter: Zimmer et al. fail to teach or fairly suggest: (1) a dye set or an ink jet ink set wherein the copper- or nickel-containing azo dye comprises a nickel metalized naphthol azo triazole or a dye of the formula

wherein M is H or a monovalent ion or (2) a dye set or an ink jet ink set wherein the copper- or nickel-containing azo dye is at least two copper- or nickel-containing azo dyes blended together as claimed by applicants.

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### Conclusion

The remaining references listed on forms 892 and 1449 have been reviewed by the examiner and are considered to be cumulative to or less material than the prior art references relied upon in the above rejections.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helene Klemanski whose telephone number is (571) 272-1370. The examiner can normally be reached on Monday-Friday 5:30-2:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on (571) 272-1233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Helene Klémanski Primary Examiner Art Unit 1755

February 22, 2005